# **INDUSTRIAL TUMBLE DRYERS**

11kg 13kg 13/13kg 15kg

**OPERATION / MAINTENANCE MANUAL** 

70269601R1

**Publication date: Oct 2002** 

Installation must conform with local codes or in the absence of local codes with:

<u>In the U.S.A.</u>, installation must conform to the latest edition of the American National Standard Z223.1/ NFPA 54 "National Fuel Gas Code" and Standard ANSI/NFPA 70 "National Electric Code."

<u>In Canada</u>, installation must comply with Standards CSA-B149.1 or Natural Gas and Propane Code CSA C22.1, latest edition, Canadian Electric Code, Part I.

<u>In Australia</u>, installation must comply with the Australian Gas Association Installation Code for Gas Burning Appliances and Equipment.



#### **WARNING**

FOR YOUR SAFETY, the information in this manual must be followed to minimize the risk of fire or explosion or to prevent property damage, personal injury or death.

W033

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS:
  - Do not try to light any appliance.
  - Do not touch any electrical switch; do not use any phone in your building.
  - Clear the room, building or area of all occupants.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

W052

#### **FOR YOUR SAFETY**

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

W053



#### MISE EN GARDE

POUR VOTRE SÉCURITÉ il est impératif de suivre les instructions de ce manuel pour minimiser les risques d'incendie ou d'explosion et pour éviter les dommages matériels, les blessures corporelles ou la mort.

W033Q

- Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.
- QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ :
  - Ne pas tenter d'allumer d'apareil.
  - Ne touchez à aucun interrupteur. Ne pas vous servir des téléphones se trouvant dans le bâtiment où vous vous trouvez.
  - Évacuez la pièce, le bâtiment ou la zone.
  - Appelez immédiatement votre fournisseur de gaz depuis un voisin.
    Suivez les instructions du fournisseur.
  - Si vous ne pouvez rejoindre le fournisseur de gaz, appelez le service des incendies.
- L'installation et l'entretien doivent être assurés par un installateur ou un service d'entretien qualifié ou par le fournisseur de gaz.

W052Q

#### **POUR VOTRE SÉCURITÉ**

Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.

W053Q

IMPORTANT: Information must be obtained from a local gas supplier on instructions to be followed if the user smells gas. These instructions must be posted in a prominent location. Step-by-step instructions of the above safety information must be posted in a prominent location near the tumbler for customer use.

# **Notes**

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# **Notes**

# Introduction

# **Model Identification**

Information in this manual is applicable to these models.†

		Gas	Steam	Electric
	LT025L	PT025L	PT025S	PT025E
25 Pound	LT025N	PT025N	PU025S	PU025E
(220 Liter)	PA025L	PU025L		
	PA025N	PU025N		
	LT030L	PA030N	PT030S	LU030E
20 Downd	LT030N	PT030L	PU030S	PT030E
30 Pound (270 Liter)	LU030L	PT030N		PU030E
(L70 Liter)	LU030N	PU030L		
	PA030L	PU030N		
	LTT30L	PTT30L	PTT30S	PTT30E
30 Pound Stacked	LTT30N	PTT30N	PUT30S	PUT30E
(300 Liter)	PAT30L	PUT30L		
(555 = 1151)	PAT30N	PUT30N		
	LT035L	PA035N	PT035S	LU035E
OF Down d	LT035N	PT035L	PU035S	PT035E
35 Pound (350 Liter)	LU035L	PT035N		PU035E
(OCC EILCI)	LU035N	PU035L		
	PA035L	PU035N		

#### † Includes models with control suffixes:

BC – basic electronic, coin	CY – prep for card	NR - NetMaster card
BL – basic electronic, central pay	EC – EDC electronic coin	NX – NetMaster coin ready
BX – basic electronic, prep for coin	EX – EDC coin ready	NY - NetMaster card ready
BY – basic electronic, prep for card	EY – EDC card ready	OM – OPL micro
CD – rotary coin drop	MT – manual timer	
CX – prep for coin drop	NC – NetMaster coin	

# **Wiring Diagram**

The wiring diagram is located in the junction or contactor box.

#### Introduction

# **Serial Plate Location**

When calling or writing for information about your product, be sure to mention model and serial numbers. Model and serial numbers are found on serial plate on rear of machine, and/or inside door hinge. Refer to *Figure 1*.

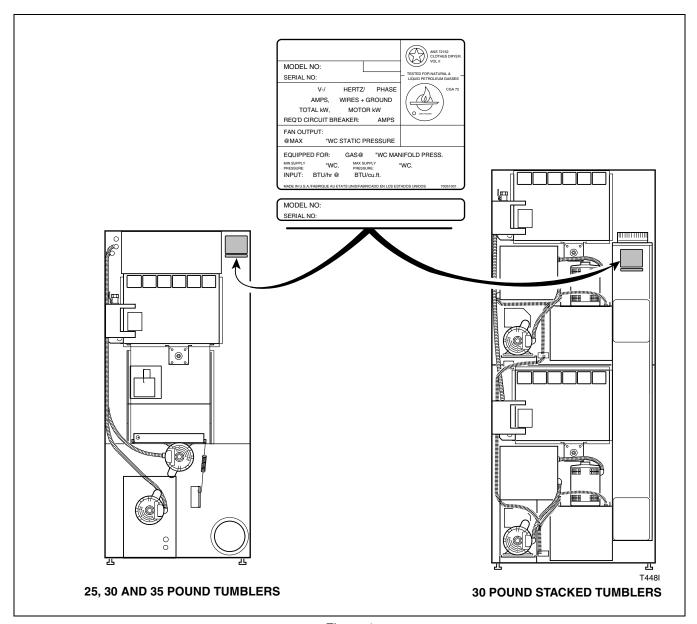


Figure 1

# **Safety Information**

Precautionary statements ("DANGER," "WARNING," and "CAUTION"), followed by specific instructions, are found in this manual and on machine decals. These precautions are intended for the personal safety of the operator, user, servicer, and those maintaining the machine.



#### **DANGER**

DANGER indicates the presence of a hazard that will cause severe personal injury, death, or substantial property damage if the danger is ignored.



#### **WARNING**

WARNING indicates the presence of a hazard that can cause severe personal injury, death, or substantial property damage if the warning is ignored.



### **CAUTION**

CAUTION indicates the presence of a hazard that will or can cause minor personal injury or property damage if the caution is ignored.

Additional precautionary statements ("IMPORTANT" and "NOTE") are followed by specific instructions.

IMPORTANT: The word "IMPORTANT" is used to inform the reader of specific procedures where minor machine damage will occur if the procedure is not followed.

NOTE: The word "NOTE" is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.

IMPORTANT: Warranty is void unless tumbler is installed according to instructions in the *Installation Manual*. Compliance with minimum specifications and requirements detailed herein, and with applicable local gas fitting regulations, municipal building codes, water supply regulations, electrical wiring regulations, and any other relevant statutory regulations. Because of varied requirements, applicable local codes should be thoroughly understood and all pre-installation work arranged for accordingly.



#### **WARNING**

Failure to install, maintain, and/or operate this machine according to manufacturer's instructions may result in conditions which can produce serious injury, death and/or property damage.

W05

NOTE: The WARNING and IMPORTANT instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution and carefulness are factors which CANNOT be built into this tumbler. These factors MUST BE supplied by the person(s) installing, maintaining or operating the tumbler.

Always contact your dealer, distributor, service agent or the manufacturer on any problems or conditions you do not understand.

#### **Save These Instructions**

# **Important Safety Instructions**



### **WARNING**

To reduce the risk of fire, electric shock, serious injury or death to persons when using your tumbler, read and follow these basic precautions:

W359

- 1. Read all instructions before using the tumbler.
- 2. Refer to the GROUNDING INSTRUCTIONS in the *Installation Manual* for the proper grounding of the tumbler.
- 3. Do not dry articles that have been previously cleaned in, washed in, soaked in, or spotted with gasoline, dry cleaning solvents, or other flammable or explosive substances as they give off vapors that could ignite or explode.
- 4. Do not allow children to play on or in the tumbler. Close supervision of children is necessary when the tumbler is used near children. This is a safety rule for all appliances.
- 5. Before the tumbler is removed from service or discarded, remove the door to the drying compartment and the door to the lint compartment.
- 6. Do not reach into the tumbler if the cylinder is revolving.
- 7. Do not install or store the tumbler where it will be exposed to water and/or weather.
- 8. Do not tamper with the controls.
- 9. Do not repair or replace any part of the tumbler, or attempt any servicing unless specifically recommended in the user-maintenance instructions or in published user-repair instructions that you understand and have the skills to carry out.
- 10. Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.
- 11. To reduce the risk of fire, **DO NOT DRY** plastics or articles containing foam rubber or similarly textured rubberlike materials.
- 12. Always clean the lint filter daily.
- 13. Keep area around the exhaust opening and adjacent surrounding area free from the accumulation of lint, dust, and dirt.

- 14. The interior of the tumbler and the exhaust duct should be cleaned periodically by qualified service personnel.
- 15. If not installed, operated and maintained in accordance with the manufacturer's instructions or if there is damage to or mishandling of this product's components, use of this product could expose you to substances in the fuel or from fuel combustion which can cause death or serious illness and which are known to the State of California to cause cancer, birth defects or other reproductive harm.
- 16. Tumbler will not operate with the loading door open. **DO NOT** bypass the door safety switch to permit the tumbler to operate with the door open. The cylinder will stop rotating when the door is opened. Do not use the tumbler if the cylinder does not stop rotating when the door is opened or starts rotating without pressing or turning the START mechanism. Remove the tumbler from use and call the service person.
- 17. Tumbler will not operate with lint panel open. **DO NOT** bypass lint panel safety switch to permit the tumbler to operate with the lint panel open.
- 18. Do not put articles soiled with vegetable or cooking oil in the tumbler, as these oils may not be removed during washing. Due to the remaining oil, the fabric may catch on fire by itself.
- 19. To reduce the risk of fire, **DO NOT** put clothes which have traces of any flammable substances such as machine oil, flammable chemicals, thinner, etc. or anything containing wax or chemicals such as in mops and cleaning cloths, or anything dry-cleaned at home with dry-cleaning solvent in the tumbler.
- 20. Use the tumbler only for its intended purpose, drying water-washed fabrics.
- 21. **ALWAYS** disconnect the electrical power to the tumbler before servicing. Disconnect power by shutting off appropriate breaker or fuse.
- 22. Install this tumbler according to the *Installation Manual*. All connections for electrical power, grounding, and gas supply must comply with local codes and be made by licensed personnel when required.

- 23. Remove laundry immediately after tumbler stops.
- 24. Always read and follow manufacturer's instructions on packages of laundry and cleaning aids. Heed all warnings or precautions. To reduce the risk of poisoning or chemical burns, keep them out of reach of children at all times (preferably in a locked cabinet).
- 25. Do not tumble fiberglass curtains and draperies unless the label says it can be done. If they are dried, wipe out the cylinder with a damp cloth to remove particles of fiberglass.
- 26. Always follow the fabric care instructions supplied by the garment manufacturer.
- 27. Never operate the tumbler with any guards and/or panels removed.
- 28. **DO NOT** operate the tumbler with missing or broken parts.

- 29. **DO NOT** bypass any safety devices.
- 30. Solvent vapors from dry-cleaning machines create acids when drawn through the heater of the drying unit. These acids are corrosive to the tumbler as well as to the laundry load being dried. Be sure make-up air is free of solvent vapors.
- 31. Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.



To reduce the risk of serious injury, install lockable door(s) to prevent public access to rear of tumblers.

W055

# Notes

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# **Operating Instructions**



#### **WARNING**

To reduce the risk of fire:

- DO NOT DRY articles containing foam rubber or similarly textured rubberlike materials.
- DO NOT DRY plastics, anything containing wax or chemicals such as mops and cleaning cloths, or anything dry-cleaned at home with a dry-cleaning solvent.
- DO NOT TUMBLE fiberglass curtains and draperies unless the label says it can be done. If they are dried, wipe out the cylinder with a damp cloth to remove particles of fiberglass.

W076

To reduce the risk of serious injury, allow cylinder to stop before cleaning lint screen.

W412

# **Emergency Stop Button on European Models**

(Manual Timer and OPL Micro Models Only)

IMPORTANT: All manual timer and OPL Micro operated tumblers are factory equipped with an emergency stop button located on the front panel.

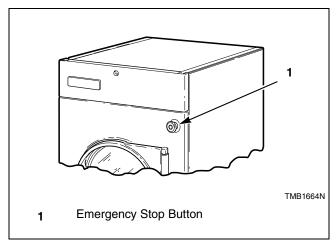


Figure 2

To operate emergency stop button:

- a. Press red emergency stop button to stop all action.
- b. To restart machine, pull red emergency stop button out and press START pad or button.

NOTE: Activation of the emergency stop button stops all machine control circuit functions, but DOES NOT remove all electrical power from machine.

### **Operating Instructions**

IMPORTANT: Clean lint screen and lint compartment daily. Failure to clean the lint screen daily will result in higher than normal temperatures that may damage laundry.

# **Clean Lint Screen/Compartment**

Remove any accumulated lint from the lint screen and compartment. Close panel tightly against tumbler frame and lock panel securely, if applicable.

# **Load Laundry**

Open loading door and load cylinder with laundry. DO NOT OVERLOAD.

NOTE: Overloading causes slow drying and wrinkling.

Close loading door. Tumbler will not operate with the door open.

# **Determine Required Temperature**

The type of fabric being dried will determine the setting. Consult the fabric-care label or fabric manufacturer to determine proper temperature setting.

IMPORTANT: Always follow the fabric care instructions supplied by the garment manufacturer.

# **Determine Control Type**

Refer to the following pages and use the appropriate instructions for the control type.

Stacked Tumblers Only: Use the correct coin slot and control panel for the top or bottom cylinder.

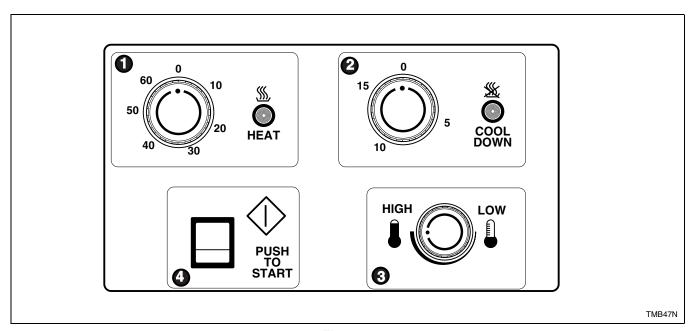


Figure 3

#### **Manual Timer**

- 1. Set the HEAT (Drying) timer for the number of minutes (from 0-60) desired.
- 2. Set the COOL DOWN (Cooling) timer for the number of minutes (from 0-15) desired.
- 3. Set the Temperature selector at HIGH, LOW or anywhere between these settings.
- 4. Press the PUSH TO START button in and hold it in for approximately three seconds. This starts the tumbler cycle.

IMPORTANT: If the door is opened during the cycle, the heating system will shut off and the motor will stop. To restart the cycle, door must be closed and the PUSH TO START button must be pressed in.

5. When the cycle is complete, open door and remove the laundry.

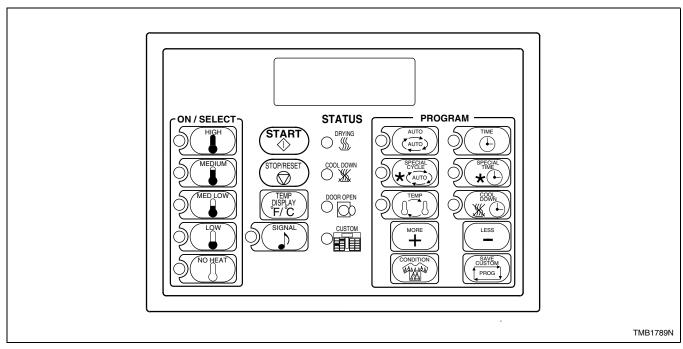


Figure 4

#### **Electronic OPL Control**

 To use an Automatic Cycle, press an ON/ SELECT pad. Select HIGH, MEDIUM, MED LOW, LOW or NO HEAT for items that should not be dried with heat. A light to the left of the selected pad lights up.

To use a Time Dry or Custom Cycle, refer to the *Programming Manual*.

NOTE: Do not press directly on lights or the center of pad. For proper selection, press on pad slightly to the right of center. Refer to *Figure 5*.

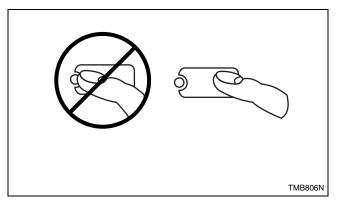


Figure 5

2. Press START pad to start tumbler.

NOTE: All pads can be pressed in any sequence without damaging control or tumbler. To stop the tumbler at any time, open the door or press STOP/RESET. The window display will flash. Press STOP/RESET twice (within 3 seconds) to end the cycle and reset the control to idle status. To restart the tumbler, CLOSE door and press START pad.

IMPORTANT: If the loading door or lint panel door is opened during the cycle, the heating system will shut off and the motor will stop. To restart the cycle, both doors must be closed and the PUSH TO START button must be pressed in.

3. When the cycle is complete, open door and remove the laundry.

#### **Operating Instructions**

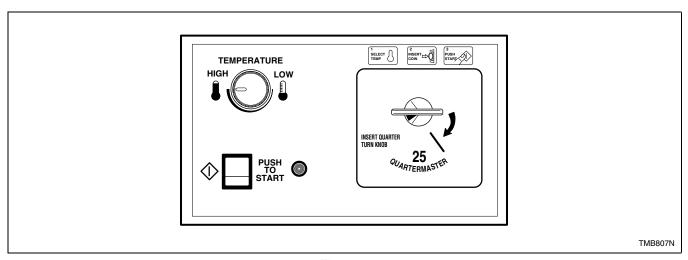


Figure 6

#### **Electromechanical Coin Control**

- 1. Set the TEMPERATURE selector at HIGH or LOW, or anywhere between these settings.
- 2. Coin Drop Models: Insert the coin(s) in the coin slot, turn the knob to the right and release it.
- 3. Press the PUSH TO START button and hold it for approximately three (3) seconds.

IMPORTANT: If the loading door or lint panel door is opened during the cycle, the heating system will shut off and the motor will stop. However, the timer will continue to run. To restart the cycle, both doors must be closed and the PUSH TO START button must be pressed in.

4. When the cycle is complete, open door and remove the laundry.

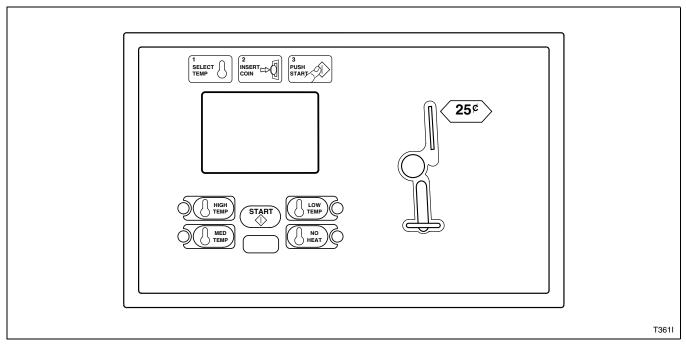


Figure 7

#### **Electronic Coin Control**

- 1. Select HIGH TEMP, MED TEMP, LOW TEMP or NO HEAT by pressing the appropriate temperature pad.
- 2. Insert the coin(s) in the coin slot.
- 3. Press START pad to start tumbler.

IMPORTANT: To stop the tumbler at any time during the cycle, OPEN DOOR. To restart the tumbler, CLOSE door and press START pad.

4. When the cycle is complete, open door and remove the laundry.

#### **Operating Instructions**

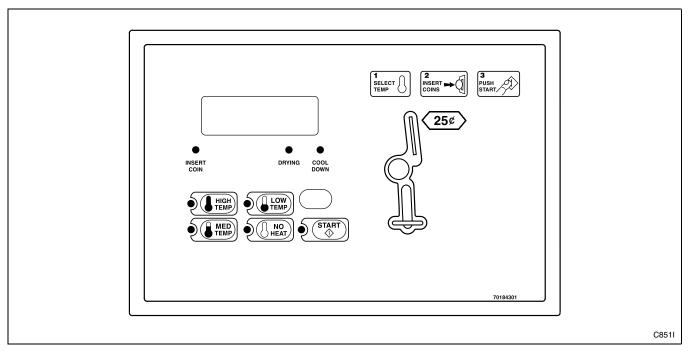


Figure 8

#### **NetMaster Coin Control**

- 1. Select HIGH TEMP, MED TEMP, LOW TEMP or NO HEAT by pressing the appropriate temperature pad.
- 2. Insert the coin(s) in the coin slot.
- 3. Press START pad to start tumbler.

IMPORTANT: To stop the tumbler at any time during the cycle, OPEN DOOR. To restart the tumbler, CLOSE door and press START pad.

4. When the cycle is complete, open door and remove the laundry.

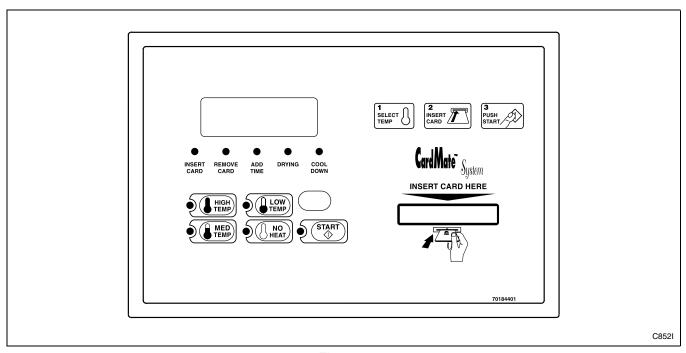


Figure 9

#### **NetMaster Card Control**

- 1. Select HIGH TEMP, MED TEMP, LOW TEMP or NO HEAT by pressing the appropriate temperature pad.
- 2. Insert card into opening. DO NOT remove the card until "REMOVE CARD" LED is lit.
- 3. Press START pad to start tumbler.

IMPORTANT: To stop the tumbler at any time during the cycle, OPEN DOOR. To restart the tumbler, CLOSE door and press START pad.

4. When the cycle is complete, open door and remove the laundry.

#### **Operating Instructions**

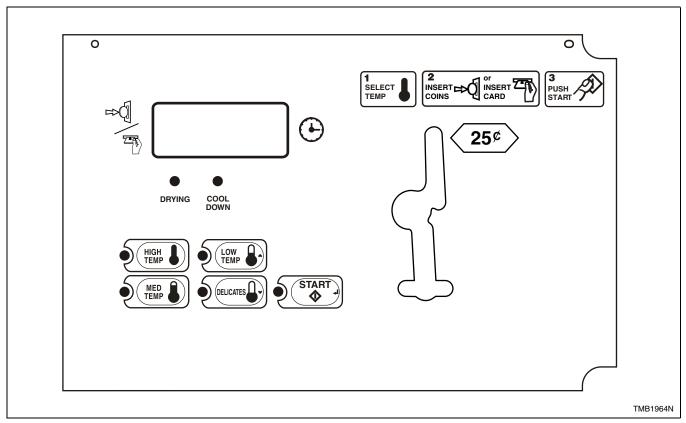


Figure 10

#### **MDC Coin Control**

- 1. Select HIGH TEMP, MED TEMP, LOW TEMP or DELICATES by pressing the appropriate temperature pad.
- 2. Insert the coin(s) in the coin slot.
- 3. Press START pad to start tumbler.

IMPORTANT: To stop the tumbler at any time during the cycle, OPEN DOOR. To restart the tumbler, CLOSE door and press START pad.

4. When the cycle is complete, open door and remove the laundry.

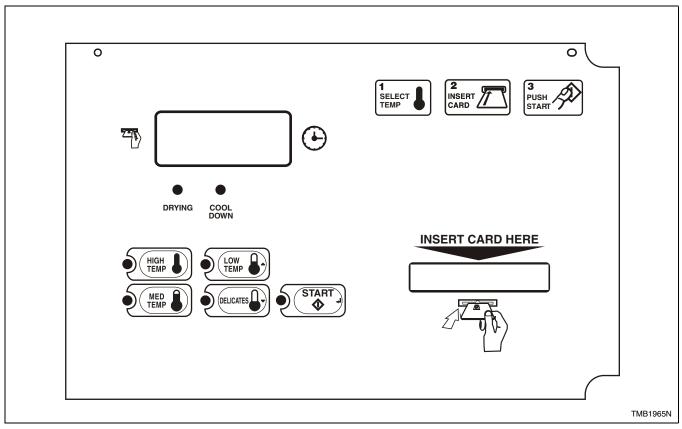


Figure 11

#### **MDC Card Control**

- 1. Select HIGH TEMP, MED TEMP, LOW TEMP or DELICATES by pressing the appropriate temperature pad.
- 2. Insert card into opening.
- 3. Press START pad to start tumbler.

IMPORTANT: To stop the tumbler at any time during the cycle, OPEN DOOR. To restart the tumbler, CLOSE door and press START pad.

4. When the cycle is complete, open door and remove the laundry.

# **Notes**

# **Maintenance**



### WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- · Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

W002

# **Daily**

Keep tumbler area clear and free from combustible materials, gasoline, and other flammable vapors and liquids.

#### Lint Removal



# **WARNING**

To reduce the risk of serious injury, do not open the lint panel while the tumbler is in operation. Before cleaning the lint screen, open tumbler door and allow cylinder to completely stop.

W410

- 1. Open the lint panel or pull out lint drawer.
- Remove all accumulated lint in the lint compartment area. Lightly brush any lint that may be left on the lint screen. Lint left in the lint compartment is drawn back onto the lint screen and will restrict proper air circulation.

- 3. Be sure the lint screen is not torn. If it is, replace immediately. A torn lint screen allows lint to pass from the tumbler to the ductwork system, thus creating a restriction to air circulation.
- 4. The lint screen is designed to completely cover the entire opening in the lint screen panel. Be sure that it does so. Excessive gaps between the lint screen and the lint screen panel allow lint to pass into the ductwork system.
- 5. Carefully wipe any accumulated lint off of the thermostat sensing probe, cabinet high limit thermostat and thermistor. Failure to do so will allow a buildup of lint in this area to act as an insulator, causing the tumbler to overheat. Refer to *Figure 12*.
- 6. Replace the lint compartment panel on the tumbler ensuring a tight fit, and lock if applicable.



To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

W00

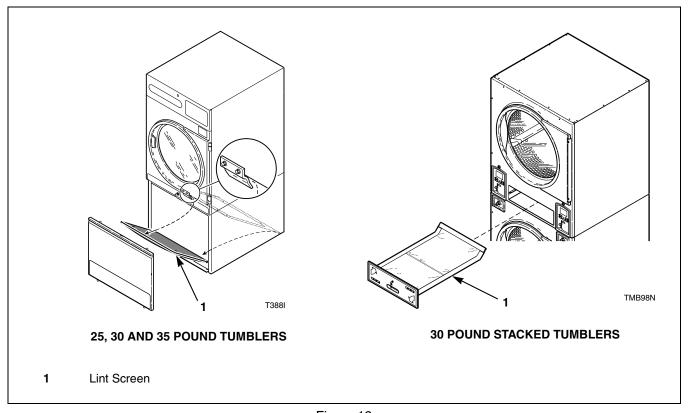


Figure 12



To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

W002

# Monthly

#### Lubrication

**DO NOT** lubricate bearings. All bearings are prelubricated and sealed.

#### Lint Removal

Remove the exhaust duct from the exhaust thimble and remove lint. If excessive lint is evident at the thimble, further disassemble the ductwork and remove lint.

# **Every Three Months**

#### **Lint Removal**

- 1. Clean the lint and any other foreign materials from the air vents located on the motors. The motors are air cooled and if the air vents become clogged, the motor will overheat and the internal thermal overload protector will cycle off.
- 2. Steam Models: Check the steam coils and remove any lint buildup and/or replace air filter in the coil fin area. This can be accomplished by using compressed air or by fabricating a comb that can be pulled across the fins of the coil.
- 3. Exhaust ducts should be periodically inspected to ensure there has been no buildup of lint which could obstruct the airflow.
- 4. Inspect the dryer area to make sure nothing is obstructing the flow of combustion and ventilation air.
- 5. Remove front panel and clean any lint buildup.

# **Every Six Months**

#### Overall Check

Check the tumbler over thoroughly for loose nuts, bolts and screws, and for loose gas, electrical and/or steam connections.

GAS CONNECTIONS: (Unions, flared tube fittings) Check for leakage that might be caused by vibration. Use a non-corrosive leak detection fluid. **DO NOT USE A FLAME AT ANY TIME TO CHECK FOR GAS LEAKS.** 

ELECTRICAL CONNECTIONS: Electrical service and grounding connections should be examined for proper tightness.



To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

W002

Three Month Maintenance					
Clean air vents on drive motor.					
Check and clean steam coils.					
Clean exhaust ducts.					
Check flow of combustion air.					
Check flow of ventilation air.					
Six Month Maintenance	·				
Check for loose nuts.					
Check for loose bolts.					
Check for loose screws.					
Check gas connection.					
Check electrical connections.					
Check steam connections.					

# **Before You Call for Service**

Won't Start	Won't Heat	Clothes Not Dry	Possible Reason – Corrective Actions
•			Insert correct coin(s) or valid card if applicable.
•			Close the loading door tightly.
•			Close lint panel tightly.
•			Press the PUSH TO START button.
•			Be sure power cord is plugged all the way into the electrical outlet.
•			Drying timer is in OFF position.
•			Check the main fuse and circuit breaker.
•			Check fuses located in the machine.
	•		Insufficient airflow.
	•		Gas shut-off valve in OFF position.
	•		Are controls properly set?
	•		Broken drive belt. Call the service person.
	•	•	Tumbler is in Cool Down Mode.
	•	•	Lint screen clogged. Clean lint screen.
	•	•	Exhaust duct to outside is blocked. Clean out.